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# TASK SHIFTING IN THE PROVISION OF MEDICAL ABORTION

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Task shifting in the provision of medical abortion

THESIS FOR DOCTORAL DEGREE (Ph.D.)

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## ABSTRACT

**Introduction:** Unsafe abortion is one of the main causes of maternal mortality. Each year, approximately 21.6 million women worldwide still undergo an unsafe abortion resulting in an estimated 47000 deaths. Currently 39% of the population lives in countries with highly restrictive abortion laws. However also in countries where abortion is legal, obstructive administrative procedures and insufficient services or providers reduce access to safe abortion services. Medical abortion is one of the safest medical procedures, with minimal morbidity and a negligible risk of death. Task shifting may result in increased access to and availability of medical abortion services while maintaining the same quality of care. While task shifting can be done to other healthcare professionals, it can also be done to women themselves with the use of telemedicine.

### **Material, methods and results:**

*Study 1* describes the outcome of medical abortions provided via Women on Web, a telemedical abortion service for women with an unwanted pregnancy up to 9 weeks living in countries without safe abortion care. This retrospective study analyzed interactive web-based questionnaires, follow-up forms, emails, and telephone calls from 484 women who received a medical abortion at their home addresses. Sixteen of the 265 (6.0%) women who provided follow-up information reported that they did not use the medication. Of the remaining 249 women who did the medical abortion at home, 13.6% reported having a surgical intervention afterwards and 1.6% reported a continuing pregnancy. After the follow up rate increased from 54.8% to 77.6% of the cases, 12.6% of the women reported they did not take the medication and only 6.8% of the women having the medical abortion at home underwent a surgical intervention afterwards.

*Study 2* explored the factors that influence the surgical intervention rate after home medical abortion provided through Women on Web to women with a pregnancy up to 9 weeks. Of the 2323 women who did the medical abortion, 289 (12.4%) received a surgical intervention. High rates were found in Eastern Europe (14.8%), Latin America (14.4%) and Asia/Oceania (11.0%) and low rates in Western Europe (5.8%), the Middle East (4.7%) and Africa (6.1%;

p=0.000). More interventions were carried out when women had a longer gestational age (p=0.000). Women without a surgical intervention reported satisfaction with the treatment more frequently (p=0.000).

*Study 3* evaluated the need for and outcome of self-administered medical abortion in Brazil, provided through telemedicine. Of the 370 women used the medicines, 307 women provided follow-up information about the outcome of the medical abortion. Of this group, 207 (67.4%) of the women were up to 9 weeks pregnant, 71 (23.1%) were 10, 11 or 12 weeks pregnant, and 29 (9.5%) of the women were at least 13 weeks pregnant. There was a significant difference in surgical intervention rates after the medical abortion at the different gestations (19.3% at <9 weeks, 15.5% at 10-12 weeks and 44.8% at >13 weeks, p=0.06). However, 42.2% of the women who had received a surgical intervention afterwards did not have any symptoms of a complication.

*Study 4* assessed the efficacy, safety and acceptability of midlevel provision of medical abortion in a clinical high resource setting. In total 1180 women eligible for inclusion were recruited and randomized to either a nurse midwife or a gynecologist for counseling, examination including ultrasound and treatment. The provision of medical abortion by midlevel providers proved to be as effective and safe as the medical abortion provided by physicians. The risk difference for efficacy was 1.6%, which falls within the 5% margin that was set for equivalence (p=0.027). Women were significantly more likely to prefer a midwife for the consultation (p<0,001).

**Conclusion:** The research shows that medical abortion can be safely and effectively provided by midlevel health care providers as well as women themselves through telemedicine. The acceptability and outcome of medical abortion up to 9 weeks of pregnancy is similar when provided by doctors, nurse midwives or administered by women themselves via telemedicine. Surgical intervention rates after the medical abortion provided via telemedicine reflect local medical practices. The risk of surgical intervention and ongoing pregnancy after home medical abortion only tends to increase after 12 weeks of pregnancy.

## LIST OF SCIENTIFIC PAPERS

- I. Gomperts RJ, Jelinska K, Davies S, Gemzell-Danielsson K, Kleiverda G. Using telemedicine for termination of pregnancy with mifepristone and misoprostol in settings where there is no access to safe services. *BJOG* 2008 Aug;115(9):1171-5.
- II. Gomperts R, Petow SA, Jelinska K, Steen L, Gemzell-Danielsson K, Kleiverda G. Regional differences in surgical intervention following medical termination of pregnancy provided by telemedicine. *Acta Obstet Gynecol Scand.* 2012 Feb;91(2):226-31.
- III. Gomperts R, van der Vleuten K, Jelinska K, da Costa CV, Gemzell-Danielsson K, Kleiverda G. Provision of medical abortion using telemedicine in Brazil. *Contraception* 2014 Feb;89(2):129-33.
- IV. Kopp Kallner H, Gomperts R, Salomonsson E, Johansson M, Marions L, Gemzell Danielsson K. The efficacy, safety, and acceptability of medical abortion provided by midlevel providers or physicians in a high resource setting- a randomized controlled equivalence trial (submitted for publication).

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## LIST OF ABBREVIATIONS

D&C	Dilatation and (sharp) Curretage
D&E	Dilatation and Evaculation
EC	Emergency Contraceptives
EUR	Euro
FIGO	The International Federation of Gynaecology and Obstetrics
HCG	Human Chorionic Gonadotropin
LMP	Last Mentrual Period
PPH	Post Partum Heamorrhage
UK	United Kingdom
US	United States
USSR	Union of Soviet Socialist Republics
VA	Vacuum Aspiration
WHO	World Health Organisation
WoW	Women on Web